

Acute Coronary Syndromes

INFLUENCE OF SEX ON THE RISK TREATMENT PARADOX IN NST-ACS PATIENTS

Poster Contributions

Poster Sessions, Expo North

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Session Title: Gender, Dissection, Outcomes from ACS

Abstract Category: 1. Acute Coronary Syndromes: Clinical

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Background: A risk treatment (RT) paradox is prevalent in NSTEMI-ACS; wherein high risk patients are least likely to receive evidence based care. The influence of sex on RT paradox is unclear. Accordingly, we evaluated this issue across sex within a registry of NSTEMI-ACS patients.

Methods: Two cohorts of NST-ACS (n=552) were studied (Sept-Nov2008 & Mar-Jun2010) comparing sex and accounting for GRACE risk score, biomarker + and prior REVASC.

Results: Selected characteristics, in-hospital care, clinical events and medications are shown in table. Despite similar times of presentation (males (M) 2.0 vs. females (F) 1.9 hrs, p=0.5) F had delayed admission to CCU (M 11.9 vs. F 15.1 hours, p<0.001). RT paradox existed in F with GRACE >140: CATH M 57.3% vs F 43.1% (p=0.057) and REVASC M 42.7% vs F 29.2% (p=0.061). Troponin + M had higher CATH 81.5% vs 66.7% (p=0.0012) and REVASC 65.1% vs 38.3% (p<0.001). With no prior REVASC, M more likely had CATH: 84.6% vs 68.9%, p<0.001. GRACE score adjusted death/re-MI/HF/shock was increased in F OR 2.04 (1.17-3.57). In contrast in all that had CATH, GRACE adjusted events were lower in F OR 0.60 (0.37-0.95).

Conclusion: F represent 30% of NSTEMI-ACS are older, higher risk but are less likely to undergo CATH/ REVASC and receive evidence based medications with more events. The RT paradox persist with GRACE risk >140, + troponin, and without prior REVASC. The RT paradox in NST-ACS is more prevalent in F and represents an unmet need that should be further investigated and addressed in clinical practice.

	All (n = 552)	Men (n = 386)	Women (n = 166)	p
EMS presentation	36.2%	30.0%	50.6%	<0.001
Age (y), median (q1, q3)	67 (56, 78)	64 (54, 75)	75 (62, 82)	<0.001
Prior revascularization	22.8%	25.1%	17.5%	0.14
Calculated creatinine clearance Initial	75.7 (45.7, 104.3)	85.6(57.9, 113.0)	44.7(32.5, 75.7)	<0.001
Killip class >2	6.9%	6.5%	7.8%	0.63
GRACE Risk Score, >140	34.2%	30.3%	43.4%	0.011
Baseline troponin I (≥ 0.15 $\mu\text{g/L}$)	73.8%	74.3%	72.7%	0.69
Length of stay (days (q1,q3))	5.5 (3.7,10.1)	5.1 (3.5,9.9)	5.9 (4.0,10.4)	0.09
Catheterization rate	77.7%	81.3%	69.3%	0.0018
Revascularization rate	56.0%	62.4%	41.0%	<0.001
Repeat-MI	1.6%	0.8%	3.6%	0.016
Congestive Heart Failure	6.2%	4.4%	10.2%	0.0089
Death	3.1%	2.6%	4.2%	0.3105
ASA (discharge)	90.2%	93.3%	83.1%	<0.001
Clopidogrel (discharge)	66.7%	69.4%	60.2%	0.092
ACE-inhibitor	69.0%	73.8%	57.8%	<0.001
B-Blocker	83.5%	84.7%	80.7%	0.40
Statins	87.0%	88.3%	83.7%	0.30